

**STATUS TEKNOLOGI SEMASA DALAM PKS PEMBUATAN
BUMIPUTERA DI NEGERI KEDAH**

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**SARJANA SAINS (PENGURUSAN TEKNOLOGI)
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**Oleh
MAZRI BIN YAAKOB**

**Tesis yang diserahkan kepada Pusat Pengajian Siswazah,
Universiti Utara Malaysia, untuk memenuhi keperluan bagi
Ijazah Sarjana Sains**

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ABSTRAK

Kajian ini menghuraikan empat komponen teknologi yang saling berkaitan iaitu *Technoware*, *Humanware*, *Infoware* dan *Orgaware* yang masing-masing mempunyai elemen-elemennya yang tersendiri. Seramai 51 pemilik atau pengusaha PKS di negeri Kedah terpilih sebagai responden kajian ini. PKS dipilih memandangkan PKS merupakan antara penyumbang utama kepada KDNK. Maklumat berkenaan PKS di negeri Kedah diperoleh melalui direktori SME Corp Malaysia, FMM dan PKNK. Kaedah temuramah secara bersemuka dan pengedaran soal selidik melalui pos digunakan untuk mendapatkan data yang dikehendaki. Bagaimanapun, data yang diperoleh melalui temuramah secara bersemuka adalah lebih banyak berbanding melalui pos. Kajian ini menggunakan pengukuran pemberat komponen teknologi olahan daripada kaedah Saaty yang dikenali sebagai AHP sebagai indikator status teknologi semasa PKS di negeri Kedah. Hasil analisis mendapati PKS berskala mikro cenderung terhadap komponen *Orgaware*, manakala PKS berskala kecil menitikberatkan komponen *Technoware*. PKS berskala sederhana pula menunjukkan penglibatan komponen teknologi yang setara. Pada keseluruhannya, PKS menunjukkan kecenderungan terhadap komponen *Orgaware* dan diikuti oleh *Technoware*, *Humanware* dan *Infoware*.

ABSTRACT

This study describe four technology component mutually related namely Technoware, Humanware, Infoware and Orgaware which respectively having their distinctive elements. As many as 51 SMEs' owners or entrepreneur in Kedah were selected as respondent. SME is chosen as SME is GDP major contributor. The information of SME in Kedah achieved through directory of SME CORP Malaysia, FMM and PKNK. Interview method by face to face and questionnaire distribution through post were used to seek the data. However, data derivative through interview by face to face were more numerous compared through post. This study used tricky technology component weight measurement of Saaty method which is known as AHP as the indicator of SME current technology's status in Kedah. The result of analysis indicated that micro scales SME inclined micro on Orgaware component, while small scale SME emphasize Technoware component. Medium scale SME also show equivalent technology component involvement. Overall, SMEs shows tendency on Orgaware component and are followed by Technoware, Humanware and Infoware.

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SINGKATAN

AHP	Proses Analisis Hierarki
APCTT	Asian and Pacific Center for Transfer of Technology
Banci	Banci Pertubuhan dan Enterpris
BNM	Bank Negara Malaysia
CAD	<i>Computer-aided design</i>
CAM	<i>Computer-aided manufacturing</i>
CI	indek konsisten
CR	nisbah konsisten
CSF	faktor kejayaan kritikal
CGC	Credit Guarantee Corporation
CNC	<i>Computer Numerical Control</i>
DM	pembuat keputusan
ECER	Wilayah Ekonomi Pantai Timur
FT	<i>Feeling Thermometer</i>
FMS	<i>Flexible Manufacturing System</i>
GAP	<i>gauging absence of pre-requisite</i>
GIS	Sistem Maklumat Geografi
IBM	<i>International Business Machines</i>
IDR	Wilayah Pembangunan Iskandar
ISAHP	<i>International Symposium on The Analytical Hierarchy Process</i>
INSAHP	<i>Indonesian Symposium on The Analytical Hierarchy Process</i>
IT	teknologi maklumat
KB	<i>knowledge-based</i>
KBPMS	<i>Knowledge-based performance measurement system</i>
KDAP	<i>Kedah Development Action Plan</i>

KDNK	Keluaran Dalam Negara Kasar
KEDA	Lembaga Kemajuan Wilayah Kedah
KPI	Petunjuk Prestasi Utama
MITI	Kementerian Perdagangan dan Perindustrian Antarabangsa
MPPK	Majlis Pembangunan Perusahaan Kecil dan Sederhana Kebangsaan
Mpb	matrik perbandingan berpasangan
MSIC	Piawaian Klasifikasi Industri Malaysia
NCER	Wilayah Ekonomi Koridor Utara
pb	perbandingan berpasangan
PKNK	Perbadanan Kemajuan Negeri Kedah
PKS	Perusahaan Kecil dan Sederhana
PMS	Sistem Pengukuran Prestasi
RI	indek rawak
RMKe-9	Rancangan Malaysia Kesembilan
R&D	Penyelidikan dan Pembangunan
SME Bank	<i>Small and Medium Enterprise Bank</i>
SMIDEC	Perbadanan Pembangunan Industri Kecil dan Sederhana
SMART	<i>Specific, Measurable, Attainable, Realistic, Time-sensitive</i>
SOP	Piawai Pengendalian Tatacara
SWOT	<i>Strengths, Weaknesses, Opportunities, Threats</i>
THIO	<i>Technoware, Humanware, Infoware, Orgaware</i>
TQM	Pengurusan Kualiti Menyeluruh
UN-ÉSCAP	United Nation-Economic and Social Commission for Asia and the Pacific
UPEN	Unit Perancangan Ekonomi Negeri

BAB 1

PENGENALAN

1.1 Latar Belakang Kajian

Perusahaan Kecil dan Sederhana atau lebih dikenali sebagai PKS di Malaysia mengalami perkembangan yang amat pesat. Perkembangan ini banyak dibantu oleh usaha yang dilakukan oleh kerajaan. Hal ini jelas ditunjukkan melalui penubuhan pelbagai agensi kerajaan yang terlibat sepenuhnya dalam pembangunan dan perkembangan PKS seperti Perbadanan Pembangunan Industri Kecil dan Sederhana (SMIDEC), Majlis Pembangunan PKS Kebangsaan (MPPK), *Small and Medium Enterprise Bank* (SME Bank) dan banyak lagi. Menurut Yip (2007), terdapat kira-kira 12 buah kementerian dan 40 buah agensi kerajaan yang giat membantu dalam pembangunan PKS. Bagi negeri Kedah, agensi yang bernama Lembaga Kemajuan Wilayah Kedah (KEDA) bertanggungjawab dalam pembangunan PKS di negeri yang dikenali sebagai Jelapang Padi ini. Bagi memajukan penubuhan PKS, beberapa pelan strategi turut dibentuk dan terkandung dalam Pelan Induk Perindustrian Ketiga (2006-2010) dan yang terkini dalam Rancangan Malaysia Kesembilan (RMKe-9). Pembangunan dan penggunaan sains dan teknologi untuk meningkatkan produktiviti adalah antara perkara penting yang diberi penekanan oleh pihak kerajaan. Di samping kemudahan peralatan dan pinjaman kewangan, pelbagai program seperti

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